

FACILITY PERMIT TO OPERATE RIV CO, WASTE MANAGEMENT DEPT, LAMB

PERMIT TO OPERATE

**Permit No. tbd
A/N 500899**

Equipment Description:

LANDFILL GAS FLARING SYSTEM CONSISTING OF:

1. LIQUID KNOCKOUT/PARTICULATE REMOVAL VESSEL, JOHN ZINK, WITH DEMISTER.
2. BLOWER, LANDFILL GAS, AEROVENT, 2000 SCFM MAXIMUM FLOW RATE.
3. FLARE NO. 1, JOHN ZINK, 7'-0" DIA. X 30'-0" H., WITH A MULTI JET BURNER, A PROPANE GAS PILOT, ELECTRIC IGNITER, UV FLAME SENSOR, THERMOCOUPLE WITH TEMPERATURE INDICATOR AND RECORDER, AUTOMATIC SHUTDOWN AND ALARM SYSTEM, AUTOMATIC COMBUSTION AIR REGULATING SYSTEM, TEMPERATURE CONTROLLER AND A FLAME ARRESTOR.

Conditions:

- 1 OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
- 2 THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
- 3 THIS EQUIPMENT SHALL BE OPERATED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.
[RULE 204]
4. THE FLARE SHALL BE DESIGNED AND OPERATED SO THAT THE FLAME IN THE FLARE REMAINS BELOW THE HEIGHT OF THE FLARE'S OPERATING THERMOCOUPLE AT ALL TIMES.
[RULE 1303 (a)(1)-BACT]
5. THE FLARE SHALL BE EQUIPPED WITH A SUFFICIENT NUMBER OF VIEW PORTS TO ALLOW VISUAL INSPECTION OF THE FLAME HEIGHT WITHIN EACH FLARE AT ALL TIMES. ALL VIEW PORTS SHALL BE LOCATED AT THE ELEVATION OF THE TEMPERATURE SENSOR LOCATION. SAFE AND ADEQUATE ACCESS TO ALL VIEW PORTS SHALL BE PROVIDED UPON REQUEST BY AQMD PERSONNEL.
[RULE 217, 1303 (a)(1)-BACT]

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6. ALL RECORDING DEVICES SHALL BE SYNCHRONIZED WITH RESPECT TO THE TIME OF DAY.
[RULE 1303 (b)(2)-OFFSET]
7. FOUR SAMPLING PORTS SHALL BE MAINTAINED IN THE FLARE STACK AT LEAST ONE HALF DUCT DIAMETER UPSTREAM OF THE FLARE OUTLET, 90 DEGREES APART. EACH SAMPLING PORT SHALL CONSIST OF A FOUR-INCH COUPLING WITH PLUG. ALL PORTS SHALL BE PROPERLY CENTERED. AN EQUIVALENT METHOD OF EMISSION SAMPLING MAY BE USED UPON APPROVAL BY THE AQMD. ADEQUATE AND SAFE ACCESS TO ALL SOURCE TEST PORTS SHALL BE PROVIDED WITHIN 48 HOURS NOTICE BY THE AQMD.
[RULE 217]
8. A SAMPLE PORT SHALL BE INSTALLED AT THE INLET GAS LINE TO THE FLARE TO ALLOW THE COLLECTION OF A LANDFILL GAS SAMPLE.
[RULE 217, 431.1 1150.1]
9. THE FLARE SHALL BE EQUIPPED WITH AT LEAST ONE TEMPERATURE INDICATOR AND A RECORDING DEVICE WHICH MEASURES AND RECORDS THE GAS TEMPERATURE IN THE FLARE STACK. THE TEMPERATURE INDICATOR AND RECORDER SHALL OPERATE WHENEVER THE FLARE IS IN OPERATION. THE TEMPERATURE SHALL BE MEASURED AT A LOCATION ABOVE THE FLAME ZONE, AT LEAST 0.6 SECOND DOWNSTREAM OF THE BURNER AND NOT LESS THAN FIVE FEET FROM THE TOP OF THE STACK.
[RULE 1303 (a)(1)-BACT]
10. WHENEVER A FLARE IS IN OPERATION, A TEMPERATURE OF NOT LESS THAN 1400 DEGREES F, AS MEASURED BY THE TEMPERATURE INDICATOR AND RECORDER, SHALL BE MAINTAINED IN THE FLARE STACK.
[RULE 1303 (a)(1)-BACT]
11. THE AUTOMATIC SHUT-DOWN SAFETY SYSTEM SHALL BE TESTED MONTHLY FOR PROPER OPERATION AND RESULTS RECORDED.
[RULE 1303 (a)(1)-BACT]
12. THE FLARE SHALL BE EQUIPPED WITH AN AUTOMATIC SHUT-DOWN SYSTEM WITH A FAILURE ALARM, WHICH HAS BEEN APPROVED BY THE AQMD, TO AUTOMATICALLY ISOLATE THE FLARE FROM THE LANDFILL GAS SUPPLY LINE, SHUT OFF THE BLOWER AND IMMEDIATELY NOTIFY A RESPONSIBLE PARTY OF THE SHUT-DOWN.
[RULE 1303 (a)(1)-BACT]
13. A FLOW INDICATING AND RECORDING DEVICE SHALL BE INSTALLED IN THE LANDFILL GAS SUPPLY LINE TO THE FLARE TO MEASURE AND RECORD THE QUANTITY OF LANDFILL GAS (IN SCFM) BEING BURNED IN THE FLARE.
[RULE 1303 (b)(2)-OFFSET]
14. A FLOW INDICATING AND RECORDING DEVICE SHALL BE INSTALLED IN THE CONDENSATE LINE TO MEASURE AND RECORD THE CONDENSATE INJECTION RATE (IN GPM) INTO THE FLARE.
[RULE 1303 (b)(2)-OFFSET]

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15. THE TOTAL VOLUME OF LANDFILL GAS BURNED IN THE FLARE SHALL NOT EXCEED 2000 STANDARD CUBIC FEET PER MINUTE.
 [RULE 1303 (b)(2)-OFFSET, 1401]
16. THE HEAT INPUT THROUGH THE FLARE SHALL NOT EXCEED 54.6 MILLION BTU PER HOUR.
 [RULE 1303 (b)(2)-OFFSET]
17. WEEKLY READINGS OF BTU CONTENT OF THE GAS AT THE INLET TO THE FLARE SHALL BE TAKEN USING AN INSTRUMENT APPROVED BY THE AQMD. ALL RESULTS SHALL BE RECORDED.
 [RULE 1303 (b)(2)-OFFSET]
18. ALL LANDFILL GAS COLLECTED SHALL BE DIRECTED EITHER TO THE FLARE FOR COMBUSTION OR TO A TREATMENT FACILITY WHICH HAS A VALID PERMIT TO CONSTRUCT OR OPERATE FROM THE AQMD.
 [RULE 1150.1, 1303 (a)(1)-BACT, 1401, 40 CFR 60 SUBPART WWW, 40 CFR 63 SUBPART AAAA]
19. THE MAXIMUM SKIN TEMPERATURE AT ANY LOCATION SHALL NOT EXCEED 250 DEGREES F.
 [RULE 217]
20. OPERATION OF THIS EQUIPMENT SHALL NOT RESULT IN THE RELEASE OF ANY RAW LANDFILL GAS OR CONDENSATE INTO THE ATMOSPHERE. ANY BREAKDOWN OR MALFUNCTION WHICH RESULTS IN EMISSIONS OF RAW LANDFILL GAS SHALL BE REPORTED TO THE AQMD WITHIN ONE HOUR AFTER OCCURRENCE, AND IMMEDIATE REMEDIAL MEASURES SHALL BE UNDERTAKEN TO CORRECT THE PROBLEM AND PREVENT FURTHER EMISSIONS INTO THE ATMOSPHERE.
 [RULE 430]
21. EMISSIONS RESULTING FROM THE FLARE SHALL NOT EXCEED THE FOLLOWING:

POLLUTANT	LBS/HR
NMHC	1.01
NOX	2.88
SOX	0.81
CO	10.92
PM10	2.12

 [RULE 1303 (b)(2)-OFFSET]
22. OXIDES OF NITROGEN EMISSIONS SHALL NOT EXCEED 0.0527 LBS/MM BTU INLET GAS.
 [RULE 1303 (b)(2)-OFFSETS]
23. FINE PARTICULATES (PM10) EMISSIONS SHALL NOT EXCEED 17.7 LB/MMCF INLET GAS.
 [RULE 1303 (b)(2)-OFFSETS]
24. THE FLARE SHALL ACHIEVE EITHER 98% DESTRUCTION EFFICIENCY OR CONTROL NMHC TO 20 PPM AT 3% O2 AS HEXANE.
 [RULE 1150.1, 40 CFR 60 SUBPART WWW, 40 CFR 63 SUBPART AAAA]
25. H2S CONTENT OF THE LANDFILL GAS SHALL NOT EXCEED 150 PPMV.
 [RULE 431.1]

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26. WITHIN 120 DAYS OF THE RECEIPT OF THIS PERMIT, **AND ANNUALLY THEREAFTER**, THE APPLICANT SHALL CONDUCT SOURCE TESTS AND SUBMIT RESULTS IN ACCORDANCE WITH SCAQMD RULE 1150.1 REQUIREMENTS. WRITTEN NOTICE OF THE TESTS SHALL BE PROVIDED TO THE SCAQMD SEVEN (7) DAYS PRIOR TO THE TESTING SO THAT AN OBSERVER MAY BE PRESENT. ALL SOURCE TESTING AND ANALYTICAL METHODS SHALL BE SUBMITTED TO THE SCAQMD FOR APPROVAL AT LEAST SIXTY (60) DAYS PRIOR TO START OF TESTS.

THE TESTS SHALL BE CONDUCTED AT THE MAXIMUM FLOW RATES ALLOWED BY THIS PERMIT, OR THE MAXIMUM FLOW RATES ACHIEVABLE, AND SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, A TEST OF THE INLET GAS TO THE FLARE(S) AND THE FLARE EXHAUST(S) FOR:

- A. METHANE
- B. TOTAL NON-METHANE ORGANICS
- C. OXIDES OF NITROGEN (EXHAUST ONLY)
- D. CARBON MONOXIDE (EXHAUST ONLY)
- E. TOTAL PARTICULATES (EXHAUST ONLY)
- F. HYDROGEN SULFIDE (INLET ONLY)
- G. C1 THROUGH C3 SULFUR COMPOUNDS (SPECIATED, INLET ONLY)
- H. CARBON DIOXIDE
- I. RULE 1150.1 TABLE 1 COMPOUNDS
- J. OXYGEN
- K. NITROGEN
- L. MOISTURE CONTENT
- M. TEMPERATURE
- N. FLOW RATES (INLET AND EXHAUST)
- O. NMOC DESTRUCTION EFFICIENCY

[RULE 1150.1, RULE 1303(a)(1)-BACT, RULE 1303(b)(2)-OFFSET, RULE 1401, 40 CFR SUBPART WWW, 40 CFR 63 SUBPART AAAA]

27. ALL RECORDS SHALL BE KEPT FOR A PERIOD OF AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE TO THE AQMD UPON REQUEST.
[RULE 1150.1, 1303 (b)(2)-OFFSET, 1401, 40 CFR 60 SUBPART WWW, 40 CFR 63 SUBPART AAAA]

Periodic Monitoring: None

Emissions and Requirements:

28. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

NMOC: 20 PPMV OR 98% WEIGHT REDUCTION, RULE 1150.1
NMOC: 20 PPMV OR 98% WEIGHT REDUCTION, 40 CFR 60 SUBPART WWW
NMOC: 20 PPMV OR 98% WEIGHT REDUCTION, 40 CFR 63 SUBPART AAAA
NO_x: 0.06 LB/MMBTU HEAT INPUT, RULE 1303(a)(1)-BACT
CO: 2000 PPMV, RULE 407
PM: 0.1 GR/DSCF, RULE 409
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS